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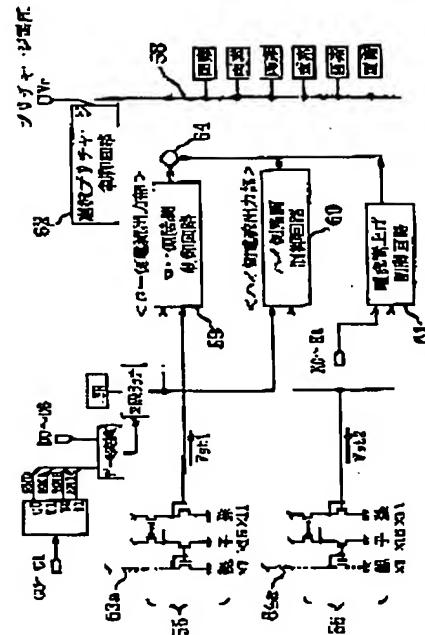
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(54) OUTPUT CIRCUIT FOR CONTROLLING GRAY-SCALE, ITS TESTING DEVICE, AND METHOD FOR TESTING THE CIRCUIT

(57)Abstract:

PROBLEM TO BE SOLVED: To provide an output circuit for controlling a gray-scale capable of displaying a proper gray-scale to be used by a display and an output device, and to provide a method for testing the output circuit for controlling the gray-scale to be driven by current.

SOLUTION: The output circuit for controlling the gray-scale comprises a lower side current mirror circuit 55, a lower side gray-scale control circuit 59, a higher side current mirror circuit 56, a higher side gray-scale control circuit 60, a current boost control circuit 61, and a selection pre-charge control circuit 62. Since the gray-scale control circuit for outputting a gray-scale signal is divided to high side and low side, the characteristic of an output current can be approximated to the  $\gamma$  characteristic of a light emitting device. The dispersion of current in each output unit can be reduced by using a multistage current mirror.



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